CHARLES COUNTY MARYLAND
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2009
Annual Drinking Water Quality Report
Waldorf Community-MD0080049
Charles County, Maryland
Prepared by the Department of Utilities

We are pleased to present this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality of the water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring that the quality of your water meets all local, State, and Federal standards and regulations.

Usted puede obtener esta informacion en espanol por llamando Departamento de Utilidades 301-609- 7400.

Maryland Department of the Environment (MDE) conducted a source water assessment for community water systems, including Waldorf, within Charles County during calendar years 2003 and 2004. Components of the assessment included delineation of areas that contribute to each water source, identification of potential sources of contamination within the areas, and determination of the susceptibility of each water supply to contamination. The summary report provided by MDE indicated that the Waldorf system is not susceptible to contaminants originating at the land surface due to the protected nature of confined aquifers. Although all tests conducted show results below State and Federal recommended levels, MDE determined the water supply to be susceptible to naturally occurring radiological contaminants. Testing for these contaminants by MDE and Charles County will continue, and you will be notified immediately if results are of any concern. This source water assessment plan which provides more information such as potential sources of contamination is available from our office. It is also available at the Charles County Public Library or from MDE.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer who are undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The Environmental Protection Agency (EPA)/Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

The sources of drinking water for your system are the Patapsco Aquifers, Magothy Aquifers and Washington Suburban Sanitary Commission's surface water plants. An aquifer is a sort of underground reservoir or deposit of water that is tapped by drilling wells and pumping the water to the surface for distribution. The earth between the surface (where sources of contamination occur) and this underground aquifer help to purify the water before it actually reaches the aquifer. This makes it easier for us to treat the water supply before we pump it into the water distribution system. The Waldorf system is served by 13 wells of varying capacity. Two rivers, the Patuxent and Potomac are the source water used by WSSC's water treatment plants. Charles County purchases this water and it is blended with existing Waldorf ground water wells. For further information, contact the Washington Suburban Sanitary Commission.

We are pleased to report that the drinking water in your system is safe and meets all Federal and State requirements. The following report is provided in compliance with Federal regulations and will be provided annually. This report outlines the quality of our finished drinking water and what that quality means. If you have any questions concerning this report or any aspect of your water utility, please contact Michelle Cutler, Environmental Operations Superintendent, at 301- 609-5603**.**

The Department of Utilities routinely monitors the Waldorf community water system for contaminants in your drinking water according to Federal and State laws. The tables on the following pages show the results of our monitoring for the period of January 1 - December 31, 2009. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It is important to remember that the presence of these contaminants does *not necessarily* pose a health risk.

In the following tables, you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms, we have provided the following definitions:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.
Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to 1 minute in 2 years or a single penny in $10,000.

Parts per billion (ppb) or Micrograms per liter (ug/L) - one part per billion corresponds to 1 minute in 2,000 years, or a single penny in $10,000,000.

Action Level - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal - The "Goal"(MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Picocuries per liter (pCi/L) - Picocuries per liter is a measure of the radioactivity in water.

Milligrams per liter (mg/L) – Milligrams per liter are equivalent to parts per million.

TEST RESULTS

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants						
Beta/photon emitters Range - all sources(2008) Range - all sources(2009)	 N N	 2 to 12 0.1	pCi/L	0	50	Decay of natural and man-made deposits
Alpha emitters Range -all sources (2008) Range - all sources(2009)	 N N	 2 to 11 10	pCi/L	0	15	Erosion of natural deposits
Combined radium (226 & 228) Range - all sources(2008) Range - all sources(2009)	 N N	ND to < 2.0 2.4	pCi/L	0	5	Erosion of natural deposits
Inorganic Contaminants						
Chromium – Westwood All other sources (2008)	N N	5.2 ND	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Copper – Distribution (2008)	N	0.18	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride Range - all sources(2008) Range - all sources(2009)	 N N	 0.5 to 1.1 1.2	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead - Distribution (2008)	N	0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen) Range - all sources(2008)	 N	 <1.0 to 1.1	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Barium	N	0.14	ppm	2	2	Discharge from drilling waste

Synthetic Organic Contaminants include Pesticides and Herbicides

Di(2-ethylhexyl) (2004) phthalate Range - all sources	N	ND to 1.3	ppb	0	6	Discharge from rubber and chemical factories
3- Hydroxycarbofuran (2004) Range - all sources	N	ND to 5.0	ppb	40	40	Leaching of soil fumigant used on rice and alfalfa

Volatile Organic Contaminants

TTHMs Distribution [Total trihalomethanes] Average (2008)	N	8.16	ppb	0	80	By-product of drinking water chlorination
HAA5s Distribution Average (2008)	N	8.5	ppb	0	60	By-product of drinking water chlorination
Xylenes, Total (2008) Well 16/St. Charles All other sources	N N	0.0005 ND	ppm	10	10	Discharge from petroleum factories; discharge from chemical factories

Note: Most detected contaminants in these tables were from our testing in CY2008. A couple results as noted were from a prior year, as not all contaminants are required to be tested for on an annual basis.

Additional contaminants which were detected through our testing, but which are currently unregulated, are listed in the following table.

Unregulated Contaminants

Chloroform Range – all sources(2008)	N	ND to3.1	ppb	N/A	N/A	By-product of drinking water chlorination
Bromodichloromethane Range – all sources(2008)	N	ND to1.1	ppb	N/A	N/A	By-product of drinking water chlorination
Dibromochloromethane Range – all sources(2008)	N	ND to1.3	ppb	N/A	N/A	By-product of drinking water chlorination
Radon Well 16/St. Charles All other sources(2008)	N N	352 waiver	pCi/L	N/A	N/A	Erosion of natural deposits
Methylene Chloride Well 16/St. Charles All other sources(2008)	N N	0.8 ND	ppb	N/A	N/A	Discharge from petroleum factories; discharge from chemical factories
Sodium Range – all sources(2008) Range - all sources(2009)	N N	6 to 69 10 to 24	ppm	N/A	N/A	Erosion of natural deposits

"If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Charles County Department of Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your drinking water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the EPA Safe Drinking Water Hotline at 1-800-426-4791 or at http://www.epa.gov/safewater/lead***."***

Nitrates in drinking water, at levels above 10 ppm, are a health risk for infants of less than 6 months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of

time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

NOTE: As can be seen by results listed in the above tables, lead, which is tested for triennial (every 3 years) in accordance with Federal and State regulations in Waldorf's distribution system, was not detected in samples collected in 2008. As per Tier 1 Notice, lead and copper results were sent to MDE in October 2008 and resent in December 2008.

All sources of drinking water are subject to potential contamination by substances which are naturally occurring or manmade. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791. MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

The presence of some contaminants in drinking water is unavoidable, but we make every effort to keep our water at or below the levels specified by law as being safe for consumption. Our Water Operations section staff consists of 21 licensed operators who have a combined experience of more than 300 years among them. Together, they have attended more than 140 hours of continuing education training in the past year in an effort to keep up-to-date with the latest in water treatment techniques to provide you with the best quality water possible. The provision of quality water is an ongoing effort for the Department of Utilities and its staff and one that we are continuously trying to improve upon.

Conservation Tips -

Did you know that the average U.S. household uses approximately 350 gallons of water per day? Luckily, there are many low-cost or no-

Department of Utilities' staff works diligently to provide top quality water and excellent customer service. All customers are urged to participate in protecting this valuable resource and practice conservation to ensure a sustainable water supply for our Community.

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